

# BAR CODE MEDICATION ADMINISTRATION (BCMA)

## **RELEASE NOTES**

PSS\*1\*46 PSJ\*5\*58 BAR CODE MED ADMIN 2.0

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## **Table of Contents**

New Features and Functionality	. 1
Discover Benefits of BCMA V. 2.0	
IV and IVP/IVPB Functionality	
IVP/IVPB Tracking System	
Medication Tabs	. 1
Marking Patches	. 2
CPRS Med Order Button	. 3
Allergies/ADR Bar	. 3
Marking Multiple Medications	
"Not Given" Status	. 4
Missing Dose Requests	
Report Printing	
Viewing Future Orders	
On-Hold Orders	
BCMA Idle Timeout	
View Menu and Related Shortcut Keys	
Modifications to Inpatient Medications V. 5.0	
New Menu Options	
New Actions	
Modified Reports	
Profiles	
New Files	
Modified Files	
New Fields	
Modified Fields	
Other Functionality	. 9

## Discover Benefits of BCMA V. 2.0



#### TIP:

BCMA is now equipped to document the administrations of Unit Dose, IV Push, IV Piggyback, and large-volume IV medication orders for your patients.

This section lists the new features and functionality included in Version 2.0 of the Bar Code Medication Administration (BCMA) package. These enhancements are a direct result of feedback from our many users.

## IV and IVP/IVPB Functionality

Besides Unit Dose medication orders, you can now administer Intravenous (IV) medications directly from BCMA using the Medication Tabs available on the Virtual Due List (VDL). IV types include Admixture, Chemotherapy, Hyperal, Piggyback, and Syringe.

## IVP/IVPB Tracking System

Unlike Unit Dose medications, which use a Drug Internal Entry Number (IEN) Code, IV medications in BCMA V. 2.0 use a Unique Identifier Number. This number is generated when the Pharmacy prints a bar code label for an IV bag. It is designed to communicate which IVs have been manufactured by the Pharmacy.

This number appears in the IV Bag Chronology display area under the IV Medication Tab on the VDL. For IV Push/IV Piggyback (IVP/IVPB) medications, you can locate this number using the Available Bags command from the Right Click drop-down menu.

**Note:** Clinicians are *not* required to scan the Unique Identifier Numbers sequentially when administering IV medication orders.

#### TIP:

See the next page to learn the different Medication Tabs available on the VDL.

#### **Medication Tabs**

BCMA now provides three Medication Tabs for separating, and viewing, the different types of active medication orders that need to be administered to a patient. They include Unit Dose, IVP/IVPB, and large-volume IV medication orders. Medications that need to be administered will correspond to one of these Tabs. This will depend on how it was entered.

Each Medication Tab provides an "alert light," which turns green *only* when the patient has active medication orders associated to them. When you click a "lit" Tab, BCMA displays the patient's active medication orders on the VDL.

**Note:** BCMA now displays an Information message for IV Piggyback medications if you close a patient record without viewing the contents of the "lit" IVP/IVPB Medication Tab. It does *not* display for IV medications since they do *not* have administration times — and you automatically have to view Unit Dose orders when the VDL opens. It is provided to ensure that all medications that are due are given to the patient in the correct dosage and on time.

## Discover Benefits of BCMA V. 2.0 (cont.)



#### TIP:

On the Unit Dose Medication Tab, if a medication has a Med Route of IV, IM, ID, SQ, or SC, you must enter an injection site when administering this order type.

## **Medication Tabs (cont.)**

Review this section to learn the types of medication orders that display under each Medication Tab on the VDL.

- Unit Dose Medication Tab: Displays all active Unit Dose orders for the Start and Stop Date/Time and Schedule Types selected on the VDL, except for orders entered with a Medication Route of IVP or IV PUSH. (These order types display under the IVP/IVPB Medication Tab.)
- IVP/IVP Medication Tab: Displays all active Unit Dose orders with a Medication Route of IVP or IV PUSH. The following IV order types display on the VDL when a clinician clicks this Tab.
  - > "Piggyback"
  - ➤ "Syringe," with the INTERMITTENT SYRINGE field set to "Yes"
  - ➤ "Chemotherapy," with the CHEMOTHERAPY
    TYPE field set to "Piggyback" or "Syringe" and the
    INTERMITTENT SYRINGE field set to "Yes"
- IV Medication Tab: Displays all active IV orders, as defined by the order Start and Stop Date/Time. The following IV order types display on the VDL when a clinician clicks this Tab:
  - ➤ "Hyperal"
  - ➤ "Admixture"
  - ➤ "Syringe," with the INTERMITTENT SYRINGE field set to "No"
  - ➤ "Chemotherapy," with the CHEMOTHERAPY
    TYPE field set to "Admixture" or "Syringe" and the
    INTERMITTENT SYRINGE field set to "No"

## **Marking Patches**

Now when you "remove" a patch (i.e., Nitroglycerin, Fentanyl, Clonidine, or Nicotine) from a patient, you can document this process using the Right Click drop-down menu. Once marked, the letters "RM" (for "Removed") then display in the Status column of the VDL.

**Note:** A patch marked as "Given," displays on the VDL each time BCMA is opened — until it is marked as "Removed" — even if the order is discontinued or expires, or if the patient is discharged or re-admitted to your medical center. This requirement applies to all orderable items with "PATCH" in the DOSE FORM field of Inpatient Medications V. 5.0.

## Discover Benefits of BCMA V. 2.0 (cont.)



#### TIP:

You can only access the CPRS Med Order Button functionality using a special security key.



#### TIP:

Orders documented via the CPRS Med Order Button do not appear on the VDL unless they are large-volume IV or non-intermittent syringe type orders that you are administering over a period of time. They appear on the VDL under the IV Medication Tab as "Infusing."

## **CPRS Med Order Button**

Commonly called the "Hot Button," the CPRS Med Order Button on the BCMA Tool Bar, links you directly to the Computerized Patient Record System (CPRS) software application for electronically ordering, documenting, reviewing and signing verbal- and phone-type STAT and NOW (One-Time) medication orders that clinicians have administered to patients. This feature is particularly useful in Intensive Care Unit (ICU) type environments, as it helps to streamline the workflow in such a busy setting.

When a clinician clicks the CPRS Med Order Button on the VDL, medications are then ordered and signed through the CPRS Medication Order dialog box and passed to the Inpatient Medications V. 5.0 software application as "nurse-verified" expired orders with a priority of "Done." These order types require Pharmacist verification. The Provider selected during the Ordering process will receive an "alert," requesting their electronic signature on the order.

BCMA documents these order types as administered to the patient in the BCMA Medication Log Report and the Medication Administration History (MAH) Report. You can also use the Reports Tab in CPRS to verify that these orders were properly documented.

On the Medication Log, the text titled "BCMA/CPRS Interface Entry," displays opposite the order. You can edit these orders using the *Edit Medication Log* [PSB MED LOG EDIT] option in the Character-based User Interface (CHUI) version of BCMA.

## Allergies/ADRs Bar

BCMA now provides an Allergies/ADRs Bar that alphabetically lists all food, drug, and "other" Allergies and Adverse Drug Reactions (ADRs) that were documented for the patient in the Allergy/Adverse Reaction Tracking (ART) package.

**Note:** The Allergies Button will continue to be available on the VDL. It provides the causative agent, drug class, signs/symptoms, and whether the allergy was verified and observed. This button will be grayed out if no allergies or reactions were documented for the patient.

## **Marking Multiple Medications**

As requested, you can now select and mark multiple medications as Held or Refused on the VDL. This feature is particularly helpful when a patient is temporarily off their ward, or if they refuse to take their medications.

## Discover Benefits of BCMA V. 2.0 (cont.)

## "Not Given" Status

Now you can change the status of a scanned medication marked as "Given" on the VDL, but *not* actually taken by a patient, to "Not Given" using the Right Click drop-down menu. The administration will display on the VDL as it appeared *before* it was marked as "Given." BCMA notes the status change only in the Audit Trail section of the Medication Log Report (*not* on the VDL).

## Missing Dose Requests

BCMA V. 2.0 automatically displays an "M" (for "Missing") in the Status column of the VDL after you submit a Missing Dose Request to the Pharmacy. The Last Action column will also include this status information after you refresh the VDL. This functionality will benefit the Pharmacy by identifying requests that have already been submitted, and by reducing the number of duplicate submissions that they receive on a daily basis.

## **Report Printing**

You can now print (and yes, still view on your screen) a variety of reports originating from BCMA via the VDL. You can print the reports by Patient or by Ward using the Reports menu or Buttons on the Tool Bar. When you select a Ward, BCMA lets you choose whether to print your report by Patient or by Room and Bed. BCMA also provides a list of printers available for outputting your reports.

Here's a few other changes to the report printing functionality in BCMA V. 2.0:

- PRN Effectiveness List: With BCMA V. 2.0, you can now easily print this list from the Reports menu and still view it on-screen. In the previous version, you could only print this report from the CHUI version of BCMA.
- MAH Date Range Selection: Lets you specify the date range (as defined by CPRS) that you want to view or print for the MAH Report. If no parameter is defined in CPRS, the maximum range defaults to a seven-day range, as in the previous version of BCMA.



#### TIP:

In CPRS, you can print a Medication Log Report and an MAH Report using the Reports Tab, or an Administration History Report using the Meds Tab.

## Discover Benefits of BCMA V. 2.0 (cont.)

## **Viewing Future Orders**

With BCMA V. 2.0, you can now view (or print) future active medication orders using the Due List command in the Reports menu. The Due List dialog box lets you determine whether to include active Unit Dose and/or IV medication orders on the report, plus Future Orders and related Changes/Addendums. The "Changes/Addendums to Order" section lets you document the order type, drug, special instructions, Start and Stop Date/Time, and the initials of the individual who administered the medication.

## **On-Hold Orders**

BCMA V. 2.0 will now display, but gray out, orders on the VDL that were placed on "Hold" by a Provider using CPRS, or by the Pharmacy using the Inpatient Medications V. 5.0 package. This same information appears on the MAH Report.

**Note:** On the VDL, you can only change the medication administration status to "Held," although it is *not* required that you do so.

#### **BCMA Idle Timeout**

BCMA now provides the "BCMA Idle Timeout" site parameter for defining the number of minutes that an idle BCMA session can stay open. Once the allowable time-out has been reached, BCMA will close. If the BCMA session displays a prompt, it will *not* time-out until the prompt is answered. The allowable entry for this parameter is 1 to 1440 minutes/day. The default is 30 minutes.

### **View Menu and Related Shortcut Keys**

BCMA now provides a View menu that lets keyboard-only users access the Medication Tabs, Allergies Button, and Patient Demographics Button using shortcut keys.

## Modifications to Inpatient Medications V. 5.0

This section describes modifications to the options, files, and fields in Inpatient Medications V. 5.0, needed to provide BCMA with the Unit Dose and IV medication data that displays on the VDL (and prints on reports).

## **New Menu Options**

The *Label Menu (IV)* option includes the *Test Control Codes (IV)* option for printing an IV label to verify the control code definitions.

#### **New Actions**

A new verify action, VF, is added to the *Order Entry (IV), Inpatient Order Entry*, and *Non-Verified/Pending Orders* options for verifying Non-Verified IV orders.

## **Modified Reports**

This section includes changes that affect IV labels and report printing.

- *Align Labels (IV)* option: Displays a generic Bar Code ID on the labels for testing the label alignment.
- Individual Labels (IV) option: Once an order is selected from the Patient Profile, all of the printed labels that have not been marked as "Given" or "Completed" by BCMA, or have not been Reprinted, Recycled, Cancelled, or Destroyed, display on the order view. These labels are available for reprinting, or the user can select to print new labels for this order.
- Scheduled Labels (IV) and Reprint Scheduled Labels (IV) options: Contains the Unique Bar Code ID for each IV label printed. The Reprint option also checks the status of the label.
  - ➤ If the Unique Bar Code ID, referencing the IV label, has been documented as "Given" or "Completed" in BCMA, the user will *not* be allowed to reprint it.
- *Labels from Suspense (IV)* option: Contains the Unique Bar Code ID for each IV label printed.
- *Reprint Labels from Suspense (IV)* option: Produces the original label content, with a Unique Bar Code ID.

Modifications to Inpatient Medications V. 5.0 (cont.)

## **Modified Reports (cont.)**

This section includes changes that affect IV labels and report printing.

- Returns and Destroyed Entry (IV) option: Displays each IV label that has been printed and not marked as "Given" or "Completed" by BCMA, including the Unique Bar Code ID.
- *Activity Log:* Displays the Unique Bar Code ID and BCMA Status, on the Labels Log, for each IV label printed. This report also displays the individual responsible for finishing and verifying IV orders.
- *Non-Verified/Pending Orders* option: Modified to count the Non-Verified IV orders, and to display these under a new heading on the Orders Summary.

#### **Profiles**

All IV profiles contain Active, Pending, and Non-Active orders. A new header for Non-Verified orders is added under which the Non-Verified orders display on the profiles. The Non-Verified indicator (->) displays on orders that require verification by either Nursing or Pharmacy.

All profiles that contain a CPRS/BCMA Med Order Button order display a status of a "d" (lowercase letter) for "DONE" priority orders. These orders display with active orders under the Active header for the Pharmacist, until Pharmacist verification is completed.

#### **New Files**

A new sub-file is added to the PHARMACY PATIENT file to capture information printed on each IV label. This sub-file contains the Unique Bar Code ID, the Order Number (the Unique Bar Code ID is associated with), BCMA Status Date/Time, BCMA Status, Usage Count, Label Date, Label Status, and Bag #.

Within the new sub-file, the multiple Additive contains each additive, strength, and bottle number associated with the Unique Bar Code ID.

Within the new sub-file, the multiple Solution contains each solution and volume associated with the Unique Bar Code ID.

Modifications to Inpatient Medications V. 5.0 (cont.)

#### **Modified Files**

The reason code "FINISHED BY TECHNICIAN" is added to the ACTIVITY LOG REASON file to document occurrences when a user, identified as a Pharmacy Technician and who possesses the PSJI PHARM TECH key, enters and/or finishes IV orders.

#### **New Fields**

An SI FLAG and an OPI FLAG field are added to the NON-VERIFIED ORDERS file, and an SI/OPI FLAG field is added to the PHARMACY PATIENT file to control whether the user administering an order in BCMA will have SPECIAL INSTRUCTIONS or OTHER PRINT INFO fields display in a Pop-up box.

Several new fields were added to the PHARMACY PATIENT file. They include:

- VERIFYING PHARMACIST field and DATE VERIFIED BY PHARMACIST field will capture the verifying Pharmacist for IV orders.
- PV FLAG and NV FLAG fields indicate whether verification is needed on IV orders.
- BCMA STATUS field and BCMAID field contain the Unique Bar Code ID and the BCMA Status of the IV order.

#### **Modified Fields**

The PRIORITY field, in the NON-VERIFIED ORDERS and the PHARMACY PATIENT files, includes a new code. The code "D" identifies a "DONE" priority and is added for Unit Dose and IV orders.

The CONVERSION COMPLETED field in the PHARMACY PATIENT file includes a new code. The code "3" signifies all previous IV orders entered *before* IV verification is marked as "Verified."

## Modifications to Inpatient Medications V. 5.0 (cont.)

## **Other Functionality**

This section contains any new or changed functionality to the Inpatient Medications V. 5.0 package, in addition to previously described modifications.

- Legible Bar Coding Requirements: The IV label device entry in the DEVICE file and the TERMINAL TYPE file requires legible bar coding capability. As a result, all medical centers must evaluate the hardware that is entered into these files. This may require a conversion to a laser-type device to assure greater bar code print quality.
- Unique Bar Code ID: Generated each time the Pharmacy prints an IV label for an IV order. This Unique Bar Code ID is printed as the first line of the label.
- Non-Verified Status: Created when a user finishes or enters
  IV orders, but does not have the appropriate key or have
  Auto-Verify turned on. This affects Pending orders, new
  orders created in Pharmacy, and orders created as a result of
  an edit.
- New Security Keys: Includes the security key PSJI RNFINISH security key for identifying a user as a nurse, and allowing them to finish and verify IV orders. The PSJI PHARM TECH key identifies the user as a Pharmacy Technician, and allows the Technician to only finish IV orders.
  - Nurses, who have the appropriate security key, can process Non-Verified IV orders.
- SPECIAL INSTRUCTIONS/OTHER PRINT INFO Prompts: When placing new orders or editing the SPECIAL INSTRUCTIONS or OTHER PRINT INFO fields through Inpatient Medications, a user is prompted whether to flag the

field for display in a BCMA Pop-up box.

- ➤ When finishing orders placed through CPRS, if the Provider Comments are *not* too long to be placed in either of these fields, a prompt asks about copying the comments into the appropriate field and flagging for display in a BCMA Pop-up box.
- An "!" will display in the order next to the SPECIAL INSTRUCTIONS or OTHER PRINT INFO fields to indicate that the field has been flagged.

Modifications to Inpatient Medications V. 5.0 (cont.)

## Other Functionality (cont.)

- Messaging Processing: Changed to gather data for an order entered via the CPRS/BCMA Med Order Button functionality. This provides the functionality to accept a "DONE" priority order as a nurse-verified, expired order requiring verification by a Pharmacist.
- A Post Init: Performed to mark orders in the IV sub-file before IV verification. Each order is examined to determine the verifying Pharmacist stored in the IV Orders Activity Log. This information is used to populate the new VERIFYING PHARMACIST field. The DATE VERIFIED BY PHARMACIST field is the date/time the patch was installed.
  - ➤ The IV Orders Activity Log stored the user name in free text. During this Post-Init conversion, the free text user name is compared to the NEW PERSON file. If there is an exact and unique match, then the IEN for this person is stored in the USER field that was added with patch PSS\*1\*46.
  - When the Inpatient Medications software is unable to determine the user's IEN, the mail message generated by this Post-Init conversion will instruct the individual, installing this patch, to assign the *PSJI ACTIVITY LOG VA200* option to a holder of the PSJI MGR key who is familiar with the Pharmacy users. This option should be used to correct any names that the Inpatient Medications software was unable to match to the NEW PERSON file.
  - ➤ Once all of the unmatched names are resolved, another mail message is generated by this option. This message will instruct the individual, who ran the *PSJI ACTIVITY LOG VA200* option, to contact Information Resource Management (IRM) to remove this option from their menu.